

What Do We Actually Know about the Four-Day School Week?

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The Center on Reinventing Public Education (CRPE) has been studying the four-day school week since 2015, when founder Paul Hill and I published *The Four-Day School Week in Rural Idaho Schools*, which used interview data from Idaho and Oregon to identify trends in how the schedule was being used.

Since then, the phenomenon of the four-day school week [has spread](#) into nonrural areas and interest appears to be growing. Given these apparent changes, we wanted to know more about recent trends in the initiative.

As districts continue to adopt the schedule, we would like to know what this trend means for students and communities in the long run. Is this a rural innovation born out of necessity—that with accountability and strategic use can result in improved student opportunities? Or is this fundamentally a negative trend, one where districts have been forced into the schedule to meet increasing demands on a shrinking budget? Under what conditions can the four-day school week result in sustained benefits for students, if at all? In this brief, we respond to common questions about the four-day school week and conclude with some questions of our own that the literature has not yet answered.

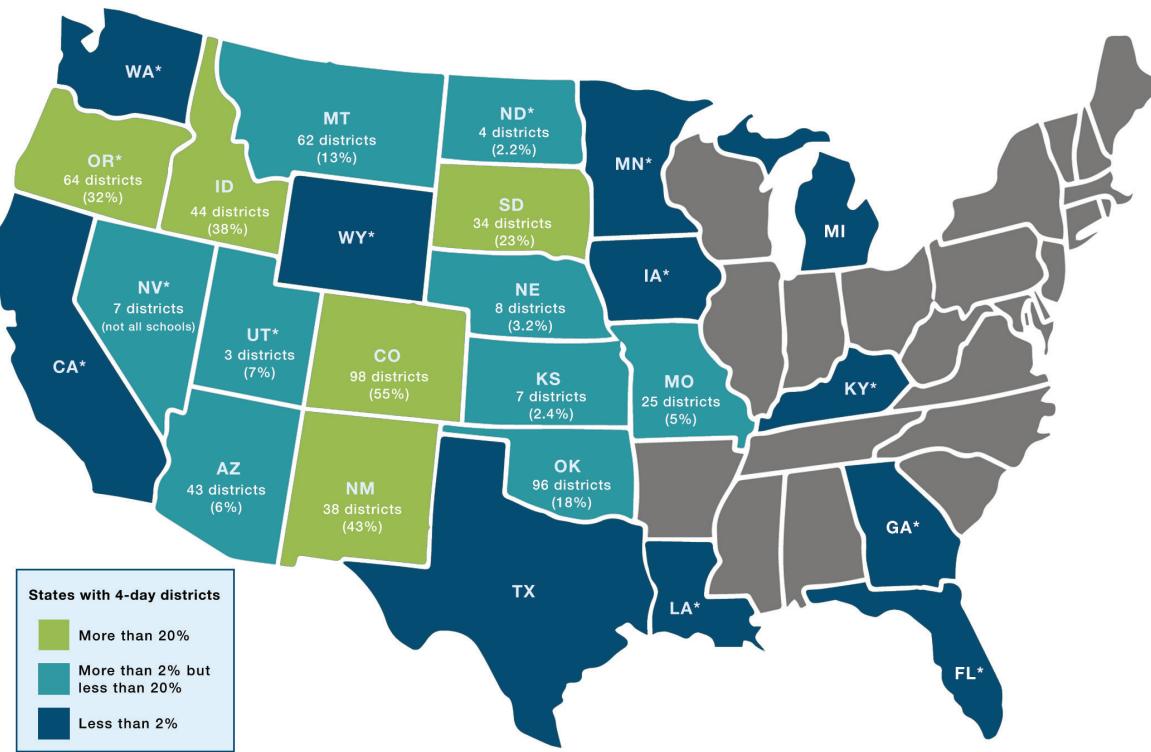
1. How Widespread Is the Four-Day School Week?

Currently, 25 states have districts using a four-day school week. Half of all states in the U.S. have at least one district on a four-day schedule. Nine additional states do not currently have any districts on a four-day schedule, but do have legislation that allows for districts to teach the same number of hours but in fewer days, either explicitly or through waivers.

About 550 districts nationwide are using the schedule. Only six states have information on their department of education website about which districts are on a four-day school week. Using additional data from secondary sources, we estimate that 550 districts have schools on a four-day school week.¹ Most of these are small and remote, but some are not. In Georgia, where rural districts have been partially consolidated, the two districts with four-day weeks educate over 10,000 students combined. In Idaho and Colorado, some four-day districts are within half an hour of urban centers.

25 States Have at Least One District Using a Four-Day School Week

Approximately 550 of the Nation's School Districts Use a Four-Day Schedule²



* The number of districts in these states are estimates because the data are from old department of education reports or newspaper reports.

Notes:

a. We only included states that have districts currently using four-day schedules. Some states had districts using the four-day schedule in the past but no longer do (e.g., Maine, Massachusetts, New Jersey).

b. All data are from the 2018 school year except for Arizona (2015), California (2011), Missouri (2017), Montana (2017), Nevada (2012), Oklahoma (2017), Oregon (2013), Texas (2016), and Utah (2013).

2. What Trends Have We Seen Over the Past Five Years?

New states are adopting the four-day school week. Interest in the four-day week has always increased during periods of fiscal crises—first in the 1930s, then in the late 1970s, and most recently in the late 2000s. While the four-day week did not gain much traction in the early part of the 20th century, throughout the 1980s districts in several states, including Colorado, Oregon, and Wyoming, began to use the schedule. In other states, the four-day school week only took off following the Great Recession. These states include Idaho, Missouri, South Dakota, and Montana. In other states, like Florida (2012), Iowa (2013), and Texas (2016), districts have adopted the schedule in just the past few years.³

Some states are implementing stricter standards of accountability. Over the past five years, we see a trend toward stricter accountability among some states, notably California, Minnesota, Oklahoma, and New Mexico.

- For the 2013-2014 school year, California passed [Senate Bill 236](#), requiring four-day districts that don't meet academic benchmarks to abandon the schedule.
- In 2014 the Minnesota Department of Education ordered seven four-day districts to return to a five-day schedule after they didn't make adequate academic progress. Starting in the 2018-2019 school year, the [state will no longer](#) accept applications for new four-day week districts.

- In 2017 the Oklahoma State Department of Education commissioned a [study](#) on spending in four-day districts and a [research review](#) about changes in academics, crime, and food insecurity. That same year, [HB 1684](#) was passed, which required all districts considering a four-day week to submit a plan detailing the goals they hope to accomplish.
- In February 2018 New Mexico announced that it would use a state funding bill to put a moratorium on the four-day school week.

Other states have had accountability structures built in. In Washington state, [HB 1292](#), passed in 2009, requires that districts request a state waiver if they want to operate on a four-day week. The waivers are reviewed every three years and will be revoked if students aren't making adequate progress. Utah has a similar policy in place.

Charter schools operate on four-day school week schedules too. One interesting trend has been the adoption of the four-day week by charter schools, typically in urban areas. Because the four-day week is written into the school's charter, these schools are held accountable for meeting academic and operational standards. We were able to find data about charter adoption of the four-day week in a handful of states, including:⁴

- **Utah:** 1 charter⁵
- **Colorado:** 10 charters
- **Idaho:** 13 charters
- **New Mexico:** 22 charters

A small number of districts reinstate a five-day week schedule. In the 1930s and again in the 1970s, states tried out the four-day school week on a provisional basis. South Dakota, Maine, and Washington all had districts that later abandoned the four-day week. The following are recent instances when districts attempted the four-day week but later reinstated a five-day schedule.

- Kentucky: Webster County [went back](#) to a five-day week in the 2014-2015 school year after having a four-day week for 10 years. System leaders reported that the change was motivated by test score decline, complacency, and the fear that students would not be prepared for the reality of a five-day work week.
- Michigan: In the past decade, several districts tried the schedule but then moved back to five-day weeks. The executive director at the Michigan Association of School Boards [said in 2018](#) that parents did not like the shorter schedule.
- Minnesota: In the 2014-2015 school year, the Department of Education [required](#) seven of the state's eleven four-day districts to go back to a five-day schedule when they didn't make adequate academic progress. An eighth district voluntarily returned to a five-day week.
- Montana: Seven districts that had the schedule in the 2014-2015 school year dropped it the following year.
- South Dakota: Between the [2010-2011](#) and [2014-2015 school years](#), four districts tried a modified four-day week, but all went back to a normal schedule within five years. Two additional four-day districts also went back to a five-day week.

In our 2015 interviews with rural superintendents, moving to a four-day school week was perceived as a permanent change. Superintendents said that the schedule fundamentally altered the community's way of life, and that because of its popularity among teachers and families, it was difficult to return to a five-day schedule. However, there have been recent instances when districts do go back to five-day schooling, proving that it doesn't have to be a permanent move if the schedule doesn't deliver the benefits educators had hoped for.

Recent studies explore the impact on academic outcomes, but little is known about the effects on students in high schools or nonrural districts. Up until five years ago, there was no clear evidence about the impact of the four-day school week on student academic performance. Studies were nonexperimental, so researchers could make no causal claims about whether student *outcomes* improved or declined under this schedule. Some reports showed a positive academic result after districts shifted to a four-day week, some showed a negative result, others showed no change at all. A 2014 study about outcomes in Montana, while still nonexperimental, used six years of data. It found that the gap between test scores among four-day districts and the state average grew over time.

Two recent reports use a quasi-experimental research design⁶ to identify the impact on test performance for elementary students, but they come to slightly different conclusions. Both studies found a net neutral impact on student performance, but short-term impacts were positive in one study while negative in the other.⁷ In both studies, effects are strongest for math proficiency rates—whether trending positively or negatively.

D. Mark Anderson and Mary Beth Walker's [2015 study](#) using Colorado data found that a greater percentage of students were proficient in math and reading in four-day districts, although only during the first two years of implementation. Beginning in year three, the improvements were no longer significant. Paul N. Thompson's [2017 study](#) using Oregon data found that proficiency rates in math and reading initially declined, but then returned to what they had been prior to the schedule change.

We can't explain the different results in these specific studies;⁸ our prior interviews with superintendents found that implementation of the four-day week varies widely between districts. Some districts use the change as an opportunity to tighten instructional practice and introduce differentiation, while others give teachers little time or support to adjust their curriculum to the longer class periods and three-day weekend.

Prior to Thompson's analysis, there was no study that considered how the four-day week affected the outcomes of schools' most vulnerable students, including elementary school students, poorer students, lower-performing students, and students receiving English language learner or special education services. With student-level data, Thompson could estimate the impact of the schedule on specific groups. In aggregate, long-term impacts were neutral. But when looking at specific groups, Thompson found that math scores declined for some minority students (black, Asian, and multirace) and for male students.⁹ The study also found that advanced students were not impacted by the schedule change, but those near the low-performing and proficiency thresholds were impacted.

Many previous studies have looked at changes in attendance and discipline rates before and after a district moved to a four-day school week, and these generally show that student and teacher attendance improve and student discipline rates decline. Both Anderson's and Thompson's studies, however, found no statistically significant decline in student absence rates. Thompson's study also looked at discipline rates but identified only a slight reduction.

Graduation rates tend to be high in rural areas, while college attendance and persistence rates are much lower for rural students than for their urban and suburban peers.¹⁰ No study about the four-day school week has yet looked at effects on college attendance, college persistence, or career attainment.

We know little about the effect on the community or district, especially long-term. Studies show that families are happy with the schedule, but this data has often been anecdotal. In 2015-2016, a research team in Missouri surveyed parents, staff, and community members in three, four-day districts during the first year of implementation. The team found that the parents of elementary and special education students were less happy with the four-day school week and more inclined to want to go back to a five-day school week.¹¹

The Missouri study team also [reported](#) that teachers tend to be satisfied with the schedule change. Some districts are using teacher interest in the schedule as a way to attract applicants. In newspaper reports, system leaders report that it has been easier to find candidates after making the shift. Thompson's 2017 study

is the only one we know of to identify changes in teacher characteristics. Following a move to a four-day week, there was no change in teacher years of experience, salary, or degree, but there was a slight increase in unlicensed teachers.

Effects on families and communities is also a concern. A 2016 [study](#) about youth crime in Colorado found that instances of property crime increased once districts moved to a four-day schedule.

Rural areas tend to have a high percentage of students eligible for free and reduced priced lunch. In our interviews, we heard from superintendents who were concerned about food insecurity for families that relied on school breakfast and lunch five days a week. However, there is no study about how often this arises as a concern or that explores ways districts have addressed this issue for the long run.

While most districts initially consider the four-day school week for financial reasons, there are often little savings in the schedule change. Districts save most of their money on cutting transportation, utilities, and classified staff salaries one day per week. Teacher salaries, which make up the bulk of a district's spending, do not decline. A 2011 [study](#) by Education Commission of the States found that the average district that moved to a four-day school week saved between 0.4 percent and 2.5 percent of the total budget. While this percentage is low, it can be significant for some districts. A 2017 [study](#) in Oklahoma tracked spending for districts that moved to a four-day week beginning in fiscal year 2011-2012. On average, nine of the sixteen districts spent more money after the switch. However, the study did not isolate change in student enrollment, which may have caused some fluctuations in spending, and the study could not identify why three districts, which likely had an increase in student enrollment, did save money after moving to a four-day school week.

Some districts hope to use the fifth unscheduled day for student enrichment. Since the four-day school week started spreading in the 1980s, rural districts have hoped to use the additional fifth day for teacher professional development or student enrichment and intervention. There is some evidence that select districts are able to creatively address typical rural challenges through a four-day week by using the fifth day for advanced learning, intervention, and internships. During the rollout of new Common Core State Standards, many districts hoped to use the fifth day of the week to prepare teachers for the change. Remote, rural districts where the four-day school week is mostly found, are natural innovators. By using community connections and their innate autonomy, these systems have been able to marshal limited resources to meet student needs. This could be an argument for giving small districts the autonomy to develop scheduling that meets their needs. However, our interviews with superintendents in four-day districts suggest that districts drop fifth-day activities over time, as funding runs out or complacency sets in. There has been no research to date about rural districts' fifth-day activities—how they are structured, how they are sustained, or how effective they are. In 2017-2018, the Donnell-Kay Foundation launched a cohort of Colorado districts interested in [leveraging the fifth day](#) for student learning, and they will be reporting their findings.

3. What Don't We Know That We Should Know?

While some schools in nonrural areas are trying out the schedule, the four-day week is still mostly found in small, rural, remote areas. These are precisely the types of school systems that tend to have high rates of poverty, few curricular offerings, and low post-secondary attendance rates. States need to better understand the long-term effects of the schedule on students and communities, and determine what needs to be in place to ensure successful implementation.

Below are gaps in knowledge that we have identified:

1. *Why are districts still interested in moving to a four-day school week?*

- What rural education tensions are being revealed by the continued interest in and expansion of the four-day week?

- What tensions are being revealed by the expansion of the schedule into nonrural and nonremote areas?
- What are the differences in implementation and impact between rural and nonrural settings?

2. *What are the impacts on students?*

- What are the impacts of the schedule change on high school students? More research is needed about the impact on K-8 students.
- Do these impacts differ by type of community—for example, by district rurality or size? How do these impacts differ by student gender, race, ethnicity, economic background, student service, or grade level?
- What are the effects on students' post-secondary preparedness, enrollment, and degree attainment?
- Are there any differences in career attainment or long-term financial success for students from four-day districts?
- Are there mediating factors that might explain the differences in impact, such as how the schedule was implemented?

3. *How can fifth-day programming fill gaps and provide quality enrichment opportunities for students?*

- What community-based opportunities exist to provide fifth-day programming?
- What does it take to prepare and support community organizations to provide rich fifth-day programming?
- What needs to happen to ensure students have equal access to fifth-day programming?
- Do intervention and enrichment programs improve student outcomes?
- How long do districts keep their supplemental programming, and what conditions help them maintain it?

4. *What is the effect of moving to a four-day school week on district management?*

- Do districts that move to a four-day week receive more teacher applications? Are the applicants of higher quality and a better fit?
- How does applicant quality change over time? As more districts in an area move to a four-day week, does the four-day week continue to be an attractor?
- Does moving to a four-day week impact teacher retention rates? Is there a change in teacher attendance or quality over time?
- Are districts able to maintain savings over time? Are there any common characteristics or activities of districts that can maintain the savings?

5. *How can we hold four-day districts accountable?*

- Some states have implemented stricter accountability for four-day districts. How has this impacted student performance? What lessons have these states learned?
- What can we learn from four-day charter schools, which are held to accountability standards through the authorization process?

Endnotes

1. Our analysis is consistent with an independent [review](#) released in May 2018 by the National Conference of State Legislatures.
2. “[Rural Education in America, Table A.1.a.-1 Number of public school districts, by district urban-centric 12-category locale and state or jurisdiction: 2013-14](#),” National Center for Education Statistics website (accessed May 17, 2018). This data lists 13,491 districts nationwide.
3. For a comprehensive analysis of state instructional time policies, see this 2018 analysis from [Education Commission of the States](#).
4. The 41 charter schools known to us with a four-day school week schedule account for half a percent of all charter schools nationwide.
5. Data are from the 2017-2018 school year, with the exception of Utah (2016-2017).
6. Both studies used a difference-in-difference analysis.
7. In this brief, we only consider results at the 5 percent or 1 percent confidence level.
8. Both studies only looked at results in rural, four-day districts, but Anderson and Walker specifically analyzed small, sparsely populated districts. Other differences were in their data: Anderson and Walker used aggregated district data for one year of elementary school, while Thompson used six years of student-level data, 3rd through 8th grades.
9. Thompson found no statistically significant impacts at the 5 percent level for score levels among Hispanic students, students receiving special education services, or students receiving English language learner services. When looking at proficiency rates, there are both positive and negative impacts at the subgroup level. See his study for details.
10. Soo-yong Byun, Matthew J. Irvin, and Judith L. Meece, “[Predictors of Bachelor’s Degree Completion among Rural Students at Four-Year Institutions](#),” *Review of Higher Education* 35, no. 3 (Spring 2012); Dan Player, *Take Me Home Country Roads? Exploring the College Attendance Patterns of Rural Youth*, EdPolicyWorks Working Paper Series No. 39 (Charlottesville, VA: University of Virginia, 2015).
11. This research has not yet been published as a report, but survey findings can be found by searching for the study’s coordinator, Dr. Kim K. Finch at Missouri State University.

About the Center on Reinventing Public Education

CRPE is a nonpartisan research and policy analysis center at the University of Washington Bothell. We develop, test, and support bold, evidence-based, systemwide solutions to address the most urgent problems in K-12 public education across the country. Our mission is to reinvent the education delivery model, in partnership with education leaders, to prepare all American students to solve tomorrow’s challenges. Since 1993 CRPE’s research, analysis, and insights have informed public debates and innovative policies that enable schools to thrive. Our work is supported by multiple foundations, contracts, and the U.S Department of Education.